

WHAT IS CLAIMED IS:

1. A telecommunications system comprising:

a First User Interface;

a Second User Interface;

a telecommunications network interconnecting said First User Interface with said Second User Interface and having at least one transmission means and protocol;

said First User Interface having a First User Agent, representing the interests of said First User Interface in negotiating communication between said First User Interface and said Second User Interface;

said telecommunications network being administered by a Network Agent, representing the interests of said telecommunications network in negotiating communication between said First User Interface and said Second User Interface; and

a Negotiation Manager being operable to:

identify agents participating in a negotiation;

implement a negotiation discipline which allows each
said participating agent to consider a contract
and either accept or revise said contract; and
respond to said negotiation being successful by
executing said contract.

2. A telecommunications system as claimed in claim 1, wherein said
First User Agent is operable to:
receive a contract from a Negotiation Manager;
inspect said contract;
respond to said contract not being acceptable by modifying
said contract to an acceptable state; and
return said contract to said Negotiation Manager.

3. A telecommunications system as claimed in claim 2, wherein said Network Agent is operable to:
receive a contract from a Negotiation Manager;
inspect said contract;
respond to said contract not being acceptable by modifying
said contract to an acceptable state; and
return said contract to said Manager.
4. A telecommunications system as claimed in claim 3, wherein said First User Agent is further operable to:
respond to a request from said First User to initiate a
communication by: creating a contract; and
transmitting said contract to said Negotiation Manager.
5. A telecommunications system as claimed in claim 4, wherein
said Network Agent is further operable to respond to
telecommunications network information being out of date by
updating said telecommunications network information.

6. A telecommunications system as claimed in claim 3, further comprising said Second User Interface having a Second User Agent, representing the interests of said Second User Interface in negotiating communication between said First User Interface and said Second User Interface.

7. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by a Negotiation Manager of:

identifying participants in a negotiation;

implementing a negotiation discipline which allows each said participating agent to consider a contract and either accept or revise said contract; and

responding to said negotiation being successful by executing said contract

8. A method of establishing communication between a First User and a Second User as claimed in claim 7, wherein prior to said step of implementing said negotiation discipline, performing the step of informing said participating agents that said negotiation is to commence.

9. A method of establishing communication between a First User and a Second User as claimed in claim 8, wherein said step of identifying participating agents comprises the steps of:
adding participating agents to said negotiation; and
authenticating said participating agents.
10. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by a Negotiation Manager of:
initializing a negotiation;
adding participating agents to said negotiation;
authenticating said participating agents;
setting up the environment for a negotiating discipline;
informing said participating agents that said negotiation is to commence;
implementing said negotiation discipline which allows each
said participating agent to consider a contract and
either accept or revise said contract;
informing said participants of the outcome of said negotiation;

responding to said negotiation being successful by executing
said contract; and
responding to said negotiation being unsuccessful by
abandoning said contract.

11. A method of establishing communication between a First User and a Second User as claimed in claim 10, wherein said step of implementing said negotiation discipline comprises the steps of:
forwarding said contract package to the next of said
negotiating participants;
receiving a modified contract package from said next
participant;
responding to said modified contract package indicating
acceptance of said contract by returning said accepted
contract package to said Contract Manager;
responding to further participants in said round by
returning to said step forwarding;
responding to further rounds to be performed by returning to
said step of forwarding; and
responding to no further rounds and no further participants
by setting an incomplete flag in said contract; and

returning said contract package to said Contract Manager.

12. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by a Negotiation Manager of:
 - receiving a contract package which contains a participant list, a number of rounds and a negotiating discipline;
 - forwarding said contract package to the next participant in said participant list;
 - receiving a modified contract package from said next participant;
 - responding to said modified contract package indicating acceptance of said contract by returning said accepted contract package to a Contract Manager;
 - responding to further participants in said round by returning to step b;
 - responding to further rounds to be performed by returning to step b;
 - setting an incomplete flag in said contract; and

returning said contract package to said Contract Manager.

13. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, said at least one transmission means and protocol being administered by a Network Entity, said method comprising the steps executed by said Network Entity of:

receiving a contract from a Negotiation Manager;

inspecting said contract;

responding to said contract not being acceptable by

modifying said contract to an acceptable state; and

returning said contract to said Manager.

14. A method of establishing communication between a First User and a Second User as claimed in claim 13, wherein prior to said step of inspecting said contract, performing the step of responding to telecommunications network information being out of date by updating said telecommunications network information.

15. A method of establishing communication between a First User and a Second User as claimed in claim 14, wherein prior to said step of returning said contract to said manager, performing the step of responding to said contract being acceptable by setting an acceptance flag in said contract.
16. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by a Network Entity of:
 - receiving a contract from a Contract Manager;
 - responding to telecommunications network information being out of date by updating said telecommunications network information;
 - inspecting said contract;
 - responding to said contract not being acceptable by modifying said contract to an acceptable state;
 - responding to said contract being acceptable by setting an acceptance flag in said contract; and
 - returning said contract to said Manager.
17. A method of establishing communication between a First User and a Second User as claimed in claim 16, wherein said

telecommunications network includes two or more transmission means and protocols, administered by separate Network sub-Entities responsible to said Network Entity, said step of inspecting said contract further comprises the steps of:

transmitting said contract to said Network sub-Entity; and

said Network sub-Entity performing the steps of:

inspecting said contract;

responding to said contract not being acceptable by

modifying said contract to an acceptable state;

and

returning said contract to said Network Entity.

18. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by said First User of:
 - receiving a contract from a Negotiation Manager;
 - inspecting said contract;
 - responding to said contract not being acceptable by
 - modifying said contract to an acceptable state; and
 - returning said contract to said Negotiation Manager.

19. A method of establishing communication between a First User and a Second User as claimed in claim 18, wherein prior to said step of receiving a contract from a Negotiation Manager, performing the steps of:
- responding to a request from said First User to initiate a communication by creating a contract; and
- transmitting said contract to a Negotiation Manager.
20. A method of establishing communication between a First User and a Second User, said First User and said Second User being interconnected by a telecommunications network having at least one transmission means and protocol, comprising the steps executed by said First User of:
- responding to a request from said First User to initiate a communication by creating a contract;
- transmitting said contract to a Negotiation Manager;
- receiving said contract from said Negotiation Manager;
- inspecting said contract;
- responding to said contract not being acceptable by
- modifying said contract to an acceptable state;

responding to said contract being acceptable by indicating

acceptance in said contract; and

returning said contract to said Negotiation Manager.

21. A method of establishing communication between a First User and a Second User as claimed in claim 20, wherein said telecommunications network includes two or more local transmission means and protocols, administered by separate Local Network sub-Entities responsible to said First User, said step of inspecting said contract further comprises the steps of:
- transmitting said contract to said Local Network sub-Entity;
- and
- said Local Network sub-Entity performing the steps of:
- inspecting said contract;
- responding to said contract not being acceptable by
- modifying said contract to an acceptable state;
- and
- returning said contract to said First User.

22. A Negotiation Manager for administering negotiation of communication between a First User and a Second User interconnected via a telecommunication network, said

telecommunication network having a plurality of transmission means and protocols, said Negotiation Manager comprising:

means for identify participants in a negotiation;

means for implementing a negotiation discipline which allows each said participant to consider a contract and either accept or revise said contract; and

means for respond to said negotiation being successful by executing said contract.

23. A First User Agent for administering negotiation of telecommunication on behalf of a First User in a telecommunications system including a Second User having a Second User Agent and a telecommunications network interconnecting said First User with said Second User, said telecommunications network having a plurality of transmission means and protocols administered by a Negotiation Manager, said First User Agent comprising:

means for receiving a contract from a Negotiation Manager;

means for inspecting said contract;

means responsive to said contract not being acceptable by modifying said contract to an acceptable state; and

means for returning said contract to said Negotiation Manager.

24. A First User Agent as claimed in claim 23, further comprising:
means responsive to a request from said First User to

initiate a communication by creating a contract; and
means for transmitting said contract to a Negotiation Manager.

25. A Network Entity for administering a plurality of transmission means and protocols in a telecommunications system, said telecommunications system including a First User having a First User Agent, a Second User having a Second User Agent and a telecommunications network interconnecting said First User with said Second User, said Network Entity comprising:

means for receiving a contract from a Negotiation Manager;
means for inspecting said contract;

means for responding to said contract not being acceptable

by modifying said contract to an acceptable state; and
means for returning said contract to said Manager.

26. A Network Entity as claimed in claim 25, further comprising means for responding to telecommunications network information being out of date by updating said telecommunications network information.